

Assessing challenges to online shopping in Nigeria: a study of selected online shoppers in Asaba, Delta State.

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Abstract: The advent of information and communication technology has led to the development of alternate channels/new methods of delivering goods and services, known as mobile service. The main objective of this study is to assess the challenges of online shopping among online customers in Asaba, Delta State. Questionnaire was used to measure the identified questions that pose challenge to online shopping. The data collected were analysed with factor analysis which reduced the questions to four components: consumer resources, security, network reliability, and privacy/confidentiality of operations. Results of the multiple regressions show that three of the four factors negatively effect and reduce the frequency with which consumers visit online shops. This study has some implications for online marketers and policy makers. Network security and reliability need to be addressed. Online marketers need to present attractive websites with well-structured information to delight online shoppers. Most of the respondents agree that online shopping makes shopping experience seamless. There is the need for sensitisation of potential customers on the safety and convenience of online shopping.

Index Terms: Online Shopping, Online Shoppers, Information Communication Technology

I. INTRODUCTION

The exchange of goods and services between parties has existed in different forms for centuries and has also evolved over time to meet the needs of individuals and technological advancements. Online shopping is the process a customer takes to purchase a product or service over the internet. Under this method, customers may at their leisure buy from the comfort of their own home products from an online shop. This has been brought about by the advent of information, and communication technology (ICT) which led to the development of alternate channels/new methods of delivering goods and services, known as mobile services. Globally, mobile services have evolved into diverse social phenomena while their applications and levels of acceptance differ from market to market and country to country. Currently, the penetration rate is over 100 per cent in many European countries, while in other less developed areas such as Latin America (Brazil, 73.7 per cent) or some Asian countries (China, 45.7 per cent); the rates are appreciably lower but have shown important growth in overall statistics (Mafe' et al., 2010). Online shopping also known as electronic commerce (e-commerce) is one of the products of advances in technological changes and developments and has changed the way in which business is transacted. Online shopping is defined as the process a customer takes to purchase a service or product over the internet (Jusoh and Ling, 2012). Online shopping or online retailing is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Alternative names are: e-webstore, e-shop, e-store, Internet shop, web-shop, web-store, online store, and virtual store (Wikipedia, 2013). It is the use of the Internet for marketing, identification, payment and delivery of goods and services (Ayo et. al. 2011).

The growth of internet in Nigeria is still considered to be in nascent stage as the internet penetration is still around 30 per cent. Furthermore, the cyber laws and its regulatory framework are also in a nascent stage. Culturally, Nigeria has its own unique set of sensitivities and socio-psychological barriers. Shankar et al. (2002) asserts that cross-cultural sensitivities ought not to be ignored at all, especially in online research, as they are more important in an online shopping context than offline context.

Aim of the project

The main objective of this study is to assess the challenges of online shopping in Nigeria. Specifically, the objectives are as follows:

- i To examine the challenges posed by consumer resources like internet proficiency and access and reliability on online shopping;
- ii to ascertain whether data security, privacy/confidentiality effect online shopping; and
- iii to discuss the implications of the of the results/findings.

Research Questions

The following research questions are formulated for the study:

- i How has inadequate consumer resources like internet literacy and reliability affect online shopping among online shoppers?
- ii what are the effects of inadequate data security, and privacy/confidentiality effect online visits?

Need of Project

This study will be significant to online marketers as it will assist in ascertaining the challenges/impediments to online shopping. Second: the growth of internet in Nigeria is still considered to be in nascent stage as the internet penetration is still around 30 per cent. Furthermore, the cyber laws and its regulatory framework are also in a nascent stage. Based on this the study will be significant as it will assist the regulatory bodies fashioning out the relevant online shopping regulations. The other benefit is that the study will add to the existing literature in the area of online shopping behaviour; and serve as a springboard for further research in the area.

11 Problem Statement

Although there have been previous studies on the adoption and development of ICT and e-commerce in Nigeria, little research has been done specifically on assessing challenges of online shopping in Nigeria. Ayo (2006) carried out a study on the assessment of the prospects of e-commerce implementation in Nigeria, and the level of participation of major companies and citizens. Ayo et al. (2011) conducted a study on problems and prospects of business to customer e-commerce in Nigeria; while Folorunso et al. (2006) investigated factors affecting the adoption of e-commerce in Nigeria, suggesting that data security and citizens' income were the two major factors. Ajayi et al (2008) carried out a study on online shopping in Nigeria to analyse online shopping experiences of consumers. The problem that prompted this study is data security, consumer resources like internet proficiency, and network reliability; and the effect on frequency of online shopping.

11.1 Literature Review

The Nigerian consumers are catching on to the global trend of on-line shopping really quickly. According to 'The Economist' newspaper, 'Shops are to shopping as typewriters are to writing!' implying that brick and mortar shops are like an old technology, which is now doomed by a better successor – on-line shops. The largest of these online retailing corporations are Alibaba, Amazon.com and eBay (The Economist, 2013). Alibaba, a Chinese online retail outfit by volume of sales according to the Economist has overtaken both the Amazon.com and e-Bay. Indeed, the Nigeria's e-commerce market is expanding rapidly, as online sales grew 25% in 2011 to N62.4 billion, up by an additional N12.5 billion from N49.9 billion in 2010; and is expected to double by 2014 as more Nigerian consumers embrace the emerging culture (Proshare 2013). The trend is fuelled by deepening internet penetration and an uptick in mobile/smart phones use in the country. In Mastercard's 2012 online shopping behaviour survey, the share of purchases made with mobile phones increased to 30.3% up from 8.0% in 2011. Analysts project online sales of NGN1.25 trillion by the year 2013 (Proshare 2013). This sector is particularly important because it is mainly dominated by young people, providing job opportunities of varying kinds; ranging from technical skill-based such as the web programmers and analytics to soft skill-based such as social media marketers.

Nigeria is the fastest growing telecommunication country in Africa (Ayo et al., 2007). The growth of a number of Internet users from year 2000 to 2010 is sporadic as it recorded 21,891.1% growth rate. According to the Internet World Stat (2010), there were 200,000 internet users in Nigeria in year 2000. This number is however less than 1% of the national population (precisely 0.1%). In the year 2006 – the number has grown to 5,000,000 (again just 3.1% of the national population). This figure doubled in 2008 with 10 million people having access to the Internet. In 2009, the figure went above double as 23,982,000 million people used Internet in Nigeria. By June 2010, the number of internet users in Nigeria has grown to 43,982,200 that is, 29.5% of the country's population. The increasing users of internet in Nigeria from 0.1% in 2000 to 29.5% of its population in June 2010 revealed that the use of internet in the country is growing at a sporadic rate and still has the potential to grow higher (Ayo, et. al. 2011). Accepting and subscribing to modern technology in contemporary life is a common factor; as people are willing to use more advanced technology in their daily lives. Moving away from the traditional communication systems (telephone), many people are now using advanced ones as their lifestyle and needs constantly change (Alpert and Muscarella, 2007). In terms of communication, most people have the opportunity to connect with each other more easily than before, due to advanced mobile technologies that are ubiquitous, portable and can be used to receive and disseminate personalised and localised information throughout the world in consumer markets (Mafe' et al., 2010). Initially, mobile services were based almost entirely on voice communication. However, new forms of mobile services have become available via other functions, such as text messaging, internet access, digital imaging, banking, and financial instrument trading and shopping.

As a continuation of the project, "Cashless policy", which commenced in Lagos late last year, the Central Bank of Nigeria (CBN) had intended to extend its cashless policy to FCT, Kano, Anambra, Abia, Rivers, and Ogun states beginning from end of 2013. Given the success recorded by the policy in Lagos and the adaptation of Lagos bank customers to alternative transaction mediums, the implementation of the policy in other parts of the country will aid online shopping in the country. Mobile technology also referred to as mobile commerce (m-commerce,) has enabled mobile services to become the most wide-reaching interactive technology in the world. It has also shown tremendous growth in usage over the last decade, particularly in less developed countries. This technological system has played an important role in supporting the daily activities of distribution and marketing. It also provides many advantages and benefits when using mobile phones as an info-communication and negotiation tool. This includes the abilities to save time and reduce costs by cutting travelling time, collecting data and information efficiently and disseminating them widely (Low and Ang, 2011). With e-commerce/online shopping being at an early stage in most third world countries of the world, online shopping trend in Nigeria is not as advanced as it is in the UK and other developed countries. Nigeria's e-commerce industry faces various challenges including poor infrastructure, road congestions, power blackouts, the high cost of internet, and cybercrime (Rosenberg,

2013). Although, the people engage in online banking (e-banking), most people are still not open to the idea of shopping online and prefer to carry out their transactions traditionally, i.e. face-to-face. Previous researches on the slow adoption of e-commerce and online shopping have identified various contributing factors (Folorunso, 2006; Adeyeye, 2008; Ajayi, et. al. 2008; Ayo, 2006; Egwali, 2009; Adesina and Ayo, 2010). One of such factors is accessibility to the Internet. A recent study on internet usage in the UK reveals that 82.5% of the total population (62,348,447 people) are internet users and 29.4% (18,354,000 people) are broadband subscribers (Internet World Stats, 2010). This ease of access to the Internet has been identified as one of the factors encouraging the adoption and growth of e-commerce and online shopping in the UK (Soopramanien and Robertson, 2007). Empirical studies (eg. Ayo et. al 2011; Adeyeye, 2008) on the motivation for online shopping have been based on a number of theories/models like the Technology Acceptance Model (TAM), theory of reasoned action (TRA), uses and gratifications (U&G) theory among others that have employed some of the variables like trust mentioned above in their studies.

Table 1: Telecommunications/ICT Infrastructure Index

Country	Telecomm. Index	Internet users per 100 inhabitants	Main fixed phone lines per 100 inhabitants	Mobile subscribers per 100 inhabitants	Fixed internet subscribers per 100 inhabitants	Fixed broadband assess per 100 inhabitants
United Kingdom	0.8135	85.00	53.71	130.25	31.14	31.38
United States	0.6860	79.00	48.70	89.86	26.63	26.34
Nigeria	0.1270	28.43	0.66	55.10	0.12	0.06
Egypt	0.2232	26.74	11.86	87.11	2.94	1.82
South Africa	0.2214	12.30	8.43	100.48	7.55	1.48
Kenya	0.1212	20.98	1.14	61.63	0.08	0.01
Gabon	0.1595	7.23	2.02	106.94	0.76	0.25
Namibia	0.1385	6.50	6.66	67.21	4.17	0.42
Gambia	0.1344	9.20	2.82	85.53	0.22	0.02
Senegal	0.1283	16.00	2.75	67.11	0.49	0.63
Rep. of Korea	0.8356	83.70	59.24	105.36	34.08	36.83

Source: Compiled from United Nations 2012 e-Government Survey; and ITU 2012 ICT Development Index/Report.

In contrast, majority of the Nigerian population do not have access to the Internet. As shown in Table one above, mobile broadband per 100 inhabitants is far below that for other West African Countries. Nigeria has the lowest Telecommunication infrastructure index compared to South Africa. Even though mobile subscription is appreciable, fixed lines are far below many African countries and all these seriously challenge online shopping. The 28.43 internet assess per 100 inhabitants means in Nigeria reveals that about 16.1% of the total population (170,000,000 people) are internet users and less than 1% of the populace (i.e. 67,800 people) are broadband internet subscribers. From these percentages, it is evident that only a fraction of the population uses the Internet and even those who access it do so through numerous cybercafés scattered all over urban parts of the country (Ayo, 2006). “Cybercafés are places where Internet public access services that are provided by entrepreneurs for a fee” (Adomi et al. 2003:489) and are quite popular among Nigerians because of the high cost of connectivity by individuals. However, due to the public nature of these cybercafés, people are not comfortable carrying out e-commerce activities there for privacy, security and network reliability issues, and this negatively affects online shopping trends in the country (Adesina and Ayo, 2010).

Another factor affecting the use of e-commerce for online shopping in Nigeria “is the lack of a nationally acceptable payment method for online goods and services” (Ajayi et al. 2008). Ayo et al. (2008:4) suggest that the low level of e-Payment infrastructure in the country, serves as a hindrance to public participation in e-commerce. From previous researches carried out on e-payment in Nigeria, it is evident that the Automated Teller Machine (ATM) is the most prominent method of payment in Nigeria (Ayo. 2008; Adesina and Ayo, 2010). Most individuals have at least one bank ATM (cash) card because they find it to be a convenient means of banking without having to queue up in banks for cash. However, Ayo et al. (2008:2) states that though the use of the ATM is widely accepted nationwide, “it is only a means for making local payments and not for e-commerce services” such as online shopping and this has a negative effect on online shopping in Nigeria.

Adeyeye (2008) also identifies another crucial factor affecting online shopping in Nigeria to be the shortage of indigenous online vendors. Most people who shop online do so from foreign online vendors like Amazon and eBay because there are very few credible online vendors in Nigeria. However, shopping from these foreign vendors can be discouraging due to high shipping costs and most orders not being processed. Nigeria has had a negative reputation for years as one of the World’s most corrupt countries engaging in wide scale Internet fraud. A recent survey by the Internet Crime Complaint Centre (IC3) ranks Nigeria third in the world with 8.0% of perpetrators of cybercrime living in Nigeria after the US (65.4%) and UK (9.9%) (Internet Crime Complaint Centre, 2009). This percentage when compared with the total population of Nigerians (i.e. about 160 million people) poses a considerable threat to the Internet world. Hence, most online vendors are wary when dealing with orders from Nigeria for fear of fraud.

It was also observed that, the few online vendors that exist do not have a “structured way of presenting information (product categories) to users and besides, they offered little assistance in helping customers find appropriate products” (Ajayi, 2008:7). This makes it difficult for customers to use their websites for online shopping purposes and this could be the reason why most Nigerian companies with online presence had minimal commercial activities taking place (Ayo et al., 2008:4).

It is therefore not surprising that only a fraction of the Nigerian populace engage in online shopping. A recent study by Adeyeye shows that only 16% of the sample surveyed shop online and the most popular payment methods used in Nigeria were the prepaid card system and direct payment to vendors’ accounts (Adeyeye, 2008:5). The prepaid card system involves buying a card to use for online purposes like checking examination results, buying airtime or renewing subscription to services; while some online vendors require direct payment into their bank accounts for purchases made online (confirmation of payment is also required before orders are fully processed). However, this method can prove frustrating and slow as customers have to make physical payments in banks. There were also a few people (about 25% of the sample surveyed) who owned credit cards and mostly shopped online from foreign vendors as discussed above (Adeyeye, 2008:5). Although these offline payment systems (prepaid card system and direct payment) may not be entirely appropriate and convenient for online shopping, most online shoppers in Nigeria are prepared to pay for products and services purchased on the Internet and the prepaid card systems seems to be the most accepted means of payment for purchases done online with 65% of sample surveyed preferring it to other payment methods (Adeyeye, 2008:5). This is due to the perceived minimal risk associated with buying the cards for online purposes. However, due to poor internet access, lack of structured e-payment systems, few online vendors often requiring offline payments, and other factors affecting online shopping in Nigeria, only a fraction of the Nigerian populace engage in online shopping. Most people would rather engage in face-to-face transactions than go through these troubles associated with online shopping.

IV Research Methodology

Survey research design was adopted and used in this study and this involves asking questions to respondents and recording responses using a structured instrument. This type of design is more directly related to descriptive and causal research and success in collecting primary data is more a function of correctly designing and administering the survey instrument which in this research is the questionnaire. The study was based on a convenience sample of 140 respondents who are online shoppers. Data used in this study came from two main sources: secondary data which were sourced from already existing materials like journals, discussion papers, annual reports, government publication/bulletins, and text books among others. On the other hand primary data were first-hand information and the instrument used for this is questionnaire. The questionnaire used in this study was designed using both the close and open end questions and was designed to cover all the possible challenges to online shopping. Five point Likert scale of: strongly agree, agree, undecided, disagree, and strongly disagree was used to measure the some of the questions while others were measured using frequency questions. This is in line with researches in marketing and consumer behaviour. The questionnaire was given to researcher’s supervisor and others who read it and made comments before it was distributed for the study. This was to ensure validity of the instrument. Factor analysis and Multiple regressions were used to analyse the data. The data was analysed with the aid of the computer software, Statistical Package for Social Sciences (SPSS) 20.

V Analysis and Interpretation

A total of 140 copies of questionnaire were distributed to the respondents out of which 98 were returned as correctly filled and without mutilation or bias. This represents a response rate of 70% which is quite appreciable and was informed by the method of distribution.

Table 2: Demographic Characteristics of respondents

Demographic variables/options	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	83	84.7	84.7
	Female	15	15.3	100.0
	Total	98	100.0	100.0
Age bracket	20-30 years	54	55.1	55.1
	31-40 years	44	44.9	100.0
	Total	98	100.0	100.0
Education	FSLC/WAEC/NECO	10	10.2	10.2
	HND/BSc	59	60.2	70.4
	Postgraduate	29	29.6	100.0
	Total	98	100.0	100.0

Table two above contain information on the demographic characteristics of the respondents. From the table, 84.7%(83) of the respondents are males while 15.3%(15) are females. This shows that males responded to the survey more than the females. The next is age and from the Table, 55.1%(54) fall within the 20 to 30 years age bracket while 44.9%(44) are within the 31 to 40 years age bracket. This means that the respondents are of reasonable age to appreciable the import of the study. Also 10.2%(10) of the

respondents had basic education, 60.2%(59) had HND/BSc while the remaining 29.6%(29) had post graduate qualification. From this it is clear that majority of our respondents have higher education and are educated enough to appreciate the import of the study.

Table 3: Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Gender	1.15	.362	98
Age Bracket	1.45	.500	98
Education	2.19	.603	98
Accessibility to the internet	1.82	1.087	98
Privacy and Confidentiality of private information	1.94	.906	98
Level of income	2.11	.951	98
Authenticity of products displayed	2.36	1.169	98
Data security	2.30	1.310	98
Internet usage proficiency	2.32	1.198	98
Network reliability	2.15	.866	98
Credit card threat	2.22	1.080	98
Computer literacy	1.87	1.118	98
Fewer online vendors	2.87	1.483	98
Frequency of online shopping	2.35	1.167	98

Table 3 contain information on the descriptive statistics: mean and standard deviation. All the three demographic variables used in the study have standard deviation less than one and this shows that little variation among the respondents. Majority of the main questions however have standard deviation more than one. This shows wide variations in the responses to the questions posing challenges to online shopping. After these preliminary analyses, factor analysis was used to condense the questions into factors and the results are shown below.

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.930	29.303	29.303	2.541	25.414	25.414
2	2.228	22.282	51.585	2.174	21.743	47.157
3	1.372	13.717	65.302	1.517	15.173	62.330
4	1.163	11.626	76.927	1.460	14.598	76.927
5	.877	8.773	85.701			
6	.625	6.249	91.949			
7	.407	4.074	96.023			
8	.192	1.922	97.946			
9	.152	1.521	99.467			
10	.053	.533	100.000			

Extraction Method: Principal Component Analysis.

The first result in the factor analysis is the KMO measure of sampling adequacy is .439 while the Bartlett's test of Sphericity with Chi square of 521.733 is significant at .000. This shows that the data merit further analysis. Table 4 above shows that the factor analysis extracted four components from the questions which explain 76.927% of variance which is well above the 70% benchmark.

Table 5: Rotated Component Matrix^a

	Component			
	1	2	3	4
Computer literacy	.889			
Accessibility to the internet	.876			
Internet usage proficiency	.825			
Data security		.860		
Credit card threat		.856		
Authenticity of products displayed		.711		
Network reliability			.825	
Level of income			-.719	

Privacy and Confidentiality of private information				.832
Fewer online vendors	.483			.630

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The last set of information from the factor analysis is the rotated components matrix of the four components extracted. Component one relate to individual resources like computer literacy, access to the internet, internet usage proficiency and fewer online shoppers. Component two is security of operations which has data security, authenticity of product information, credit card threat. Component three is network reliability while component four is privacy/confidentiality of private information.

Table 6: Regression Results

Model Summary^b						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.327 ^a	.107	.069		1.127	2.846
a. Predictors: (Constant), Privacy/Confidentiality , Network reliability, Security of operations, Consumer resources						
b. Dependent Variable: Frequency of online shopping						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.177	4	3.544	2.793	.031 ^b
	Residual	118.027	93	1.269		
	Total	132.204	97			
a. Dependent Variable: Frequency of online shopping						
b. Predictors: (Constant), Privacy/Confidentiality , Network reliability, Security of operations, Consumer resources						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.347	.114		20.624	.000
	Consumer resources	-.217	.114	-.186	-1.897	.061
	Security of operations	-.028	.114	-.024	-.247	.806
	Network reliability	-.280	.114	-.240	-2.448	.016
	Privacy/Confidentiality	.141	.114	.121	1.232	.221
a. Dependent Variable: Frequency of online shopping						

The components extracted were used to run a regression on the effects the factors/challenges have on the frequency of online shopping by the respondents and the results of this is contained in Table 5 above. The first information is the model summary. The correlation coefficient is .327 which is very weak correlation. The coefficient of determination R^2 is .107 meaning that 10.7% of variations in the online shopping frequency is accounted for by the four components. The adjusted coefficient of determination (adjusted R^2) or R^2 adjusted for error is .067. The Durbin Watson is 2.846 and shows that the data has no redundant variable. The next is the ANOVA which has a score of 2.793 with a p value of .031 lower than .05 showing that the model is a good fit. Three of the four coefficients: consumer resources, security of operations and network reliability have negative coefficients meaning that they impact negatively on the frequency of online shopping. The last component privacy and confidentiality has positive coefficient and by the analysis here impacts positively on the online shopping frequency. The model for the study is:

$$OSF = a + -.217CR + -.028SO + -.280NR + .141PC + \epsilon$$

VI Recommendation/Suggestion/Findings

It was observed that it is most of the times challenging to get a trusted connection with the online sellers.

It was also observed that, the few online vendors that exist do not have a “structured way of presenting information (product categories) to users and besides, they offered little assistance in helping customers find appropriate products”.

This makes it difficult for customers to use their websites for online shopping purposes and this could be the reason why most Nigerian companies with online presence had minimal commercial activities taking place.

Online marketers need to present attractive websites with well-structured information to delight online shoppers. Most of the respondents agree that online shopping makes shopping experience seamless. This study has some implications for online marketers and policy makers. The study identified consumer resources of internet access, usage proficiency and reliability as a major challenge to online. Hence there is the need for urgent attention to address issues relating internet access. Internet services with reliability of networks facilities need to be addressed by the policy makers. Also the issues of network security and reliability need to be addressed. It was observed that it is most of the times challenging to get a trusted connection with the online sellers. It was also observed that, the few online vendors that exist do not have a “structured way of presenting information (product categories) to users and besides, they offered little assistance in helping customers find appropriate products”. This makes it difficult for customers to use their websites for online shopping purposes and this could be the reason why most Nigerian companies with online presence had minimal commercial activities taking place. Online marketers need to present attractive websites with well-structured information to delight online shoppers. Most of the respondents agree that online shopping makes shopping experience seamless. There the need for sensitisation of potential customers on the safety and convenience of online shopping.

VII Conclusions

The first of objective of this study is to ascertain the challenges posed by consumer resources like computer literacy, internet access and internet usage proficiency on online shopping. The second objective is to find out the effect of network reliability, data security as well as privacy/confidentiality of online transactions on the frequency of online shopping. Questionnaire was used to measure the identified questions that pose challenge to online shopping. The data collected were analysed with factor analysis. The method of the factor analysis adopted is the Principal Component Analysis (PCA) with Kaiser Normalisation and Varimax rotation. The factor analysis reduced the questions to four components: consumer resources, security, network reliability, and privacy/confidentiality of operations. The four components extracted explain 76.927% of total variance which higher than the 70% benchmark. To now address the research objectives and answer the research questions the four components were used as independent variables to run a multiple regression. The dependent variable is the respondents reported frequency of online shopping. The result is in Table 5 and shows that three of the factors: consumers’ resources, data security and network reliability have negative coefficients and effect online shopping frequency negatively. Privacy/confidentiality of transactions has positive coefficient. Thus, it can be concluded that three of the four factors negatively effect and reduce the frequency with which consumers visit online shops. These findings agree with Adesina and Ayo (2010) that privacy, security and network reliability issues, and this negatively affects online shopping trends in the country.

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